

covered on 19 May 2004 by Dan Sharratt, Oregon Department of Agriculture, while assisting a Forest Service weed management group in the release of biological control agents for *Linaria dalmatica* at a *Mirabilis macfarlanei* site across the Snake River (G. Yates personal communication). The closest previously known site on the Snake River was at Garden Creek, about 65 km north of Pittsburg Landing. A population at Pine Bar on the Salmon River lies about 30 km north of Pittsburg Landing, but is much farther as measured either by road or river routes. Not collected, but another population of *Crupina vulgaris*, about 0.2 ha in size, was discovered by Dan Sharratt on 13 May 2003 on the Idaho side of the river between RM200 and RM201 near the mouth of Camp Creek, about 0.4 km downriver from the mouth of Dry Creek (45.7853°N, 116.6288°W). This privately owned site lies about 24 km downriver from Pittsburg Landing.

Significance. The area around Pittsburg Landing has been grazed by cattle and sheep since the 1880s, when small homesteads were established. From 1891 through 1933 the Pittsburg ferry provided transportation across the Snake River to the wagon road from White Bird, Idaho, that was completed in 1900 (Carrey et al. 1979, Snake River of Hells Canyon, Backeddy Books, Cambridge, ID). Wood sold his holdings to the Nez Perce Sheep Company, one of the largest sheep operations in the Canyon, owned up to 200,000 head of ewes in the 1920s (Carrey et al. 1979), of which several thousand were grazed in the Pittsburg area (Baumgarten, Hells Canyon NRA, personal communication). The Circle C Cattle Company purchased the land from the Nez Perce Sheep Company in the early 1930's, and used the land for winter grazing for their cattle operation (E. Baumgarten personal communication). Circle C Ranch was purchased as part of the creation of Hells Canyon NRA in 1973 and Jayo Ranches secured the Forest Service grazing permit, continuing to use it for winter forage until the permit was cancelled in 2002 (E. Baumgarten personal communication).

In the Salmon River drainage just to the east of Hells Canyon NRA, four populations of *Crupina vulgaris* were discovered from 1997 to 2000 between Grangeville and Riggins (L. Lake, Nez Perce NF, personal communication). These included a population 2 km east of Whitebird on Banner Ridge (45°44.506'N, 116°16.785'W), occupying a waste area near a hayfield at 750 m in 1999; 12 ha around a hayfield south of Rhet Creek at 1050 m (45°37.7'N, 116°19.4'W) in May 1997; 16 ha on south-facing grassland along Sherwin Creek at 1050 m (45°35.9'N, 116°19.3'W) in May 2000; and 2 ha of south-west-facing grassland along the Salmon River at 670 m (45°35.3'N, 116°18.8'W), also in May 2000. The latter three sites lying west of the Salmon River between Slate Creek and Lucile, managed by Jayo Ranch (C. Crabtree, Idaho County Weed Program, personal communication), are a probable source for the introduction at Pittsburg Landing.

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OREGON

AEGILOPS CYLINDRICA Host. (POACEAE).—Jackson Co., Sky King Cole Ranch, dominant grass on lower side of road Pilot Rock Road for about a km. T40S R2E sect. 33 W.M., 42°02.917'N, 122°35.238'W, 1440 m, 26 June 2004, *Cindy Talbott Roché s.n.* (OSC).

Previous knowledge. A widespread weed of cereal crops, this species is established in the wheat-growing region of northeastern Oregon, including Baker, Umatilla, Union, and Wallowa counties.

Significance. Jointed goatgrass, a class B Noxious Weed in Oregon, had not been previously reported in Jackson County. This is the first report west of the Cascade Mountains in Oregon. A probable source of introduction is straw mulch used in a revegetation project.

AEGILOPS TRIUNCIALIS L. (POACEAE).—Josephine Co., between Cave Junction and O'Brien on Highway 199 on the east side of the road at the bridge at Rough and Ready Creek, and also along the pullout road for about 0.2 km, associated species: *Ceanothus cuneatus*, *Bromus hordeaceus*, *Aira caryophyllea*; T40S R8W NE sect. 18 W.M., 42°05.562'N, 123°41.015', 420 m, 17 June 2004, *Armand Rebeschke and Robert Hartwein s.n.* (OSC).

Previous knowledge. Discovered by Nick Ott in a vegetation survey contracted by Oregon Department of Transportation, the barbed goatgrass site was reported to Ken French, Oregon Department of Agriculture SW Oregon IVM Specialist, on June 7, 2003. This species is native to the eastern Mediterranean and was previously known only from California and western Nevada (in the USA).

Significance. Barbed goatgrass is listed as a Class A Noxious Weed in Oregon. This is the first report in the state documented by a collection. It may have been introduced via vehicular traffic from California.

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WASHINGTON

CRYPTANTHIA GRACILIS Osterh. (BORAGINACEAE).—Grant Co., Grand Coulee, Sun Lakes State Park, near Dry Falls Lake, near base of rimrock, in soil pocket in talus slope. With *Eriogonum niveum*, *Thelypodium laciniatum*, *Bromus tectorum*, *Epilobium minutum*, 165° azimuth, 50% slope, 410 m elevation, T24N R28E S6, 25 April 1998, *Kathryn A. Beck & Florence E. Caplow 98005* (WTU); Grant Co., Beezley Hills, dry rocky creek bottom, with *Balsamorhiza careyana*, *Lupinus sulphureus*, *Lomatium dissectum*, *Artemisia tridentata*, *Bromus tectorum*, 260° azimuth, 30% slope, 775 m elevation, T21N R28E S13, 29 April 1998, *Kathryn A. Beck & Florence E. Caplow 98007* (WTU); Grant Co., low rounded hills north of Beezley Hills in steep, dry eroding, largely unvegetated sidedraw of main hills, with *Eriogonum strictum*, *Eriogonum compositum*, *Achillea millefolium*, *Poa secunda*, *Phoenicautis cheiranthoides*. Several hundred small plants growing in orange brown soil, 160° azimuth, 70% slope, 845 m elevation, T22N R24E S28, 10 May 1999, *Kathryn A. Beck 99001* (WTU).

Previous knowledge. This taxon is known from Oregon, Idaho, California and most other western states.

Significance. These represent the first known collections of *C. gracilis* in Washington and a significant range extension to the north and west. *C. gracilis* is currently included on the Review Group 1 list in Washington (Washington Natural Heritage Program, 2004, List of plants tracked by the Washington Natural Heritage Program, Washington Natural Heritage Program, Washington Department of Natural Resources, Olympia, WA).

GALIUM PALUSTRE L. (RUBIACEAE).—Pend Oreille Co., Pend Oreille River, plants growing in locally wet area between Ruby boatlaunch and Le Clerc Road, with *Phalaris arundinacea*, *Carex vulpinoidea*, *Carex aperta*, *Symphotrichum laeve*. Plants are scrambling on other vegetation. Pressed specimens have turned black. 90° azimuth, 1% slope, 658 m elevation, T35N R44E S19 SW¼ of NE¼, 24 August 1996, Kathryn A. Beck & Florence E. Caplow 96062 (ALA). Specimens determined by D. Murray; Pend Oreille Co., sedge meadows along the Pend Oreille River, 1.7 km north of Usk, T33N R44E S30 SE¼, 650 m elevation, 10 August, 1998, sedge meadows along the west bank of the Pend Oreille River. C. Björk 3892.

Previous knowledge. *Galium palustre* is known from eastern North America, west to Ontario, Michigan and Montana, reported for Alberta and Manitoba, and introduced in the Yukon (Scoggan, 1979, The flora of Canada, National Museums of Canada, Ottawa, ON).

Significance. First documented collection in Washington.

HALIMOLOBOS PERPLEXA var. *PERPLEXA* (Henderson) Rollins (BRASSICACEAE).—Douglas Co., Sagebrush Flats, east of Moses Coulee, in open, vernal moist, thermally altered basalt gravel/scabland in shrub-steppe matrix with *Eriogonum douglasii*, *Lewisia rediviva*, *Penstemon gairdneri*, *Eriogonum thymoides*. 548 m elevation, T23N R25E S16, 28 May 2003, Florence E. Caplow 200302 (MO). Specimen determined by I. Al-Shehbaz.

Previous knowledge. This taxon was previously believed to be restricted to Adams and Idaho counties, Idaho.

Significance. This is the first collection from Washington, and represents a substantial disjunction to the west from the known range.

JUNCUS TIEHMII B. Ertter (JUNCACEAE).—Douglas Co., Moses Coulee, on flat, seepy bench area between two sloping areas above valley bottom. Natural seep in silt and clay accumulation on top of basal bedrock, with moss spp., *Epilobium minutum*, *Juncus bufonius*, *Agrostis interrupta*, *Poa secunda*, *Epilobium pygmaeum*, *Mimulus breviflorus*, 310° azimuth, 1% slope, 635 m elevation, T25N R25E S23, 5 June 1998, Kathryn A. Beck & Florence E. Caplow 98058 (WTU, UC). Specimens determined by B. Ertter. Same locality, 12 June 1998, Kathryn A. Beck & Florence E. Caplow 98065 (WTU).

Previous knowledge. This species was known from California, Oregon, Idaho, and Nevada.

Significance. This is the first collection from Washington, and represents a substantial range extension to the north. *Juncus tiehmii* is currently included on the Threatened list in Washington (Washington Natural Heritage Program 2004).

SCHIZACHYRIUM SCOPARIUM (Michx.) Nash var. *SCOPARIUM* (POACEAE).—Douglas Co., east bank of Columbia River below the Wells Dam, growing in cobbley, gravelly substrate in linear population at water's edge, with *Melilotus alba*, *Poa compressa*, *Sporobolus cryptandrus*, *Hypericum perforatum*, *Aristida purpurea*, *Solidago* sp. Plants are periodically inundated by river level fluctuations. 300° azimuth, 3% slope, 232 m elevation, T28N R23E S26, 27 May 1999, Kathryn A. Beck & Florence Caplow 99016 (WTU); Chelan Co., west bank of Columbia River below

the Wells Dam, growing in cobbley, gravelly substrate in linear population at water's edge, with *Aristida purpurea*, *Poa compressa*, *Juniperus scopulorum*, *Poa* sp., *Amelanchier alnifolia*, *Hypericum perforatum*. Plants are periodically inundated by river level fluctuations. 90° azimuth, 2% slope, 230 m elevation, T28N R23E S23, 15 July 1999, Kathryn A. Beck 99039 (WTU); Douglas Co., east bank of the Columbia River below Rocky Reach Dam. Plants growing below high water level in a discontinuous line in cobbley, gravelly substrate, with *Melilotus alba*, *Poa compressa*, *Dichanthelium acuminatum*, *Aristida purpurea*, *Grindelia columbiana*, *Heterotheca villosa*, *Asparagus officinalis*, *Lupinus lepidus*, *Lomatium grayi*, *Hypericum perforatum*. Population is at upper end of Rock Island Dam pool where the original (pre-dam) shoreline is unflooded, 270° azimuth, 3% slope, 197 m elevation, T23N R20E S15, 16 August 2001 Kathryn A. Beck 200134 (WTU).

Previous knowledge. *Schizachyrium scoparium* is present in almost all states in the continental United States. It is most prevalent in the central and southern Great Plains.

Significance. These collections represent the first documented collections from Washington. *S. scoparium* var. *scoparium* is currently included on the Threatened list in Washington (Washington Natural Heritage Program 2004). In 2000, this taxon was also seen in Stevens Co., Washington, in similar habitat along the upper Columbia River by Rex Crawford of the Washington Natural Heritage Program.

SISYRINCHIUM MONTANUM Greene var. *MONTANUM* (IRIDACEAE).—Douglas Co., Columbia River, Rocky Reach, north of Beebe Bridge, in mossy, vernal moist spring on side of hill at high water level of Columbia River in sandy silt loam, with *Pinus ponderosa*, *Juniperus scopulorum*, *Medicago sativa*, *Juncus balticus*, *Solidago canadensis*, *Asparagus officinalis*, *Artemisia ludoviciana*, *Hypericum perforatum*, 280° azimuth, 35% slope, 232 m elevation, T27N R23E S22, 26 May 1999, Kathryn A. Beck & Florence E. Caplow 99011 (WTU, MIN). Specimens determined by A. Cholewa.

Previous knowledge. This taxon ranges throughout the Rocky Mountain states, mostly east of the continental divide, north to British Columbia and Alberta and south to Texas (Henderson 1976).

Significance. This is the first record of this species in Washington. It represents a range extension of approximately 270 km to the west from the nearest known population in northern Idaho near the British Columbia border. *S. montanum* is currently included on the Threatened list in Washington (Washington Natural Heritage Program 2004).

SPIRANTHES DILUVIALIS Sheviak (ORCHIDACEAE).—Okanogan Co., saline marshes at the northern tip of Wannacut Lake. T39N R26E S11, 600 m elevation, 4 August, 1998; 4 miles SW of Oroville, 7 miles south of the International border. Associated species include *Juncus balticus* s.l., *Juncus torreyi*, *Eleocharis rostellata*, *Potentilla argentea*, *Carex viridula*. C. Björk 3508; Chelan Co., Columbia River near Beebe Bridge, in moist, herbaceous, weedy meadow, in dark loamy soil, near small pond, east side of Columbia River, with *Dichanthelium acuminatum*, *Poa compressa*, *Symphotrichum spathulatum*, *Melilotus alba*, *Coreopsis tinctoria* var. *atkinsoniana*, *Phalaris arundinacea*, *Equisetum* sp. 190° azimuth, 1% slope, 232

m elevation, T27N R23E S17, 21 July 2000, *Kathryn A. Beck and Florence E. Caplow 200017* (NYS). Specimens determined by C. Sheviak; Chelan Co., Columbia River, Rocky Reach, north of Beebe Bridge, in moist, herbaceous meadow adjacent Columbia River, with *Poa compressa*, *Agrostis* sp., *Plantago lanceolata*, *Solidago canadensis*, *Melilotus alba*, *Panicum occidentale*, *Equisetum* sp. Meadow inundated periodically by rising river levels. 135° azimuth, 2% slope, 232 m elevation, T28N R23E S35, 1 August 2000, *Kathryn A. Beck & Florence E. Caplow 200021* (WTU).

Previous knowledge. This species is known from southeastern Idaho, Montana, Utah, Colorado, Wyoming, Nebraska, and Nevada.

Significance. This globally rare species is new to Washington. These collections represent a range extension of approximately 600 km from the nearest populations in Montana. *S. diluvialis* is federally Threatened and is listed as Endangered in Washington (Washington Natural Heritage Program 2004).

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